## ABSTRACT OF THE DISCLOSURE

A laser-annealing method includes the steps of a first step of cleaning a non-monocrystal silicon film formed on a substrate, and a second step of laser-annealing the non-monocrystal silicon film in an atmosphere containing oxygen therein, wherein the first and second steps are conducted continuously without being exposed to the air. Also, a laser-annealing device includes a cleaning chamber, and a laser irradiation chamber, wherein a substrate to be processed is transported between the cleaning chamber and the laser irradiation chamber without being exposed to the air.